REMARKS

The Office Communication, mailed December 4, 2002, has been received and reviewed. Claims 15, 16, and 19-21 are pending. Claims 15, 16 and 19-21 stand rejected.

I. Information Disclosure Statement:

The Information Disclosure Statement, filed May 31, 2001, has not been fully considered as the IDS evidently lacked copies of two references, Zhao *et al.* and Strusberg. The applicants submit that copies of the above references were included with the IDS submitted May 25, 2001. However, submitted herewith is a supplemental IDS containing copies of all the references cited in the IDS of May 25, 2001, including the above mentioned references. The office is hereby authorized to charge the required fee to deposit account 20-1469. Consideration of the references is respectfully requested.

II. Priority:

The applicants acknowledge with thanks, entry of the priority claim under 35 U.S.C. § 119.

III. Claim Objections:

Claims 15 and 19 are objected to for reciting "Apoptin-associating proteinaceous substance," which is alleged to encompass inventions drawn to non-elected groups. Claims 15 and 19 have been amended to remove "Apoptin-associating proteinaceous substance." Withdrawal of the objection is respectfully requested in light of the amendment.

IV. Claim Rejection Under 35 U.S.C. § 112, First Paragraph:

Claims 15, 16 and 19-21 stand rejected under 35 U.S.C. § 112, first paragraph, for alleged failure to satisfy the written description in regard to "capable of causing apoptosis" and "functional equivalent or functional fragment."

The applicants have amended the claims to remove "capable of causing apoptosis" and "functional equivalents or functional fragments." The applicants respectfully request

reconsideration and withdrawal of the rejection in light of the amendments.

V. Claim Rejection Under 35 U.S.C. § 112, Second Paragraph:

Claims 15, 16 and 19-21 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Specifically, claims 16 and 21 stand rejected because "said apoptosis is p53-independent" was thought to be confusing and to not further limit the independent claims. Claims 15 and 19 stand rejected because "capable of inducing apoptosis" was thought to be indefinite.

Claims 16 and 21 have been amended to recite "said apoptosis inducing substance is administered to a p53-minus cell." Thus, claims 16 and 21 have been amended to more clearly set forth that the administering step is to a p53-minus cell, as suggested by the Examiner. The applicants respectfully request reconsideration and withdrawal of the rejection in light of the amendment.

Claims 15 and 19 have been amended to remove "capable of inducing apoptosis." The applicants submit that the rejection is rendered moot in light of the amendment and respectfully request reconsideration and withdrawal of the rejection.

VI. Claim Rejection Under 35 U.S.C. § 102:

Claims 15 and 16 stand rejected as allegedly anticipated by Zhuang *et al.* Claims 15 and 16 stand rejected as allegedly anticipated by Oorschot *et al.* Claims 15, 16 and 19-21 stand rejected as allegedly anticipated by Pietersen *et al.* The basis for all three rejections is derived from a broad interpretation of the phrase "functional equivalent or functional fragment."

The applicants have deleted the "functional equivalents or functional fragments" terminology from the claims. Thus, the claims now recite administering SEQ ID NOs:1 and 9 (AAP-5). The cited references, Zhuang *et al.* (disclosing VP3), Oorschot *et al.* (disclosing apoptin) and Pietersen *et al.* (disclosing apoptin), do not disclose the use of AAP-5. As acknowledged by the Examiner "[t]he sequences encoding AAP-5, SEQ ID NOs:1 and 9, are free of the art of record," page 12 of paper 10. Therefore, none of the cited references anticipate the claims as amended.

The applicants respectfully request reconsideration and withdrawal of the rejection in light of the amendment.

CONCLUSION

In light of the amendment, the application is believed to be in condition for allowance. In the event questions remain after consideration of these remarks and amendments, the Office is kindly requested to contact applicant's attorney at the number given below.

Respectfully submitted,

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GSD/gsd
Document in ProLaw

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IN THE CLAIMS:

15. (Amended) A method of inducing apoptosis in a cell comprising administering to said cell an apoptosis inducing substance selected from the group consisting of:

an isolated or recombinant nucleic acid of SEQ ID NO 1 or SEQ ID NO 9 [or a functional equivalent or functional fragment thereof, said functional equivalent or functional fragment thereof encoding an Apoptin-associating proteinaceous substance capable of causing apoptosis in a cell to which said isolated or recombinant nucleic acid or Apoptin-associating proteinaceous substance has been delivered],

a vector comprising an isolated or recombinant nucleic acid of SEQ ID NO 1 or SEQ ID NO 9 [or a functional equivalent or functional fragment thereof, said functional equivalent or functional fragment thereof encoding an Apoptin-associating proteinaceous substance capable of causing apoptosis in a cell to which said isolated or recombinant nucleic acid or Apoptin-associating proteinaceous substance has been delivered],

a host cell transformed with an isolated or recombinant nucleic acid of SEQ ID NO 1 or SEQ ID NO 9 [or a functional equivalent or functional fragment thereof, said functional equivalent or functional fragment thereof encoding an Apoptin-associating proteinaceous substance capable of causing apoptosis in a cell to which said isolated or recombinant nucleic acid or Apoptin-associating proteinaceous substance has been delivered],

[an isolated or recombinant Apoptin-associating proteinaceous substance comprising a sequence as shown in SEQ ID NO 2 or SEQ ID NO 10 or a functional equivalent or functional fragment thereof capable of causing apoptosis in a cell to which said proteinaceous substance has been administered,] and

mixtures thereof.

16. (Amended) The method according to claim 15 wherein said [apoptosis is p53-independent.] apoptosis inducing substance is administered to a p53-minus cell.

19. (Amended) A method for treating a subject having a disease wherein enhanced cell proliferation or decreased cell death is observed, said method comprising treating the subject with the pharmaceutical composition comprising:

a pharmaceutically acceptable amount of a component selected from the group consisting of:

an isolated or recombinant nucleic acid of SEQ ID NO 1 or SEQ ID NO 9 [or a functional equivalent or functional fragment thereof, said functional equivalent or functional fragment thereof encoding an Apoptin-associating proteinaceous substance capable of causing apoptosis in a cell to which said isolated or recombinant nucleic acid or Apoptin-associating proteinaceous substance has been delivered],

a vector comprising an isolated or recombinant nucleic acid of SEQ ID NO 1 or SEQ ID NO 9[or a functional equivalent or functional fragment thereof, said functional equivalent or functional fragment thereof encoding an Apoptin-associating proteinaceous substance capable of causing apoptosis in a cell to which said isolated or recombinant nucleic acid or Apoptin-associating proteinaceous substance has been delivered],

a host cell transformed with an isolated or recombinant nucleic acid of SEQ ID NO 1 or SEQ ID NO 9[or a functional equivalent or functional fragment thereof, said functional equivalent or functional fragment thereof encoding an Apoptin-associating proteinaceous substance capable of causing apoptosis in a cell to which said isolated or recombinant nucleic acid or Apoptin-associating proteinaceous substance has been delivered],

[an isolated or recombinant Apoptin-associating proteinaceous substance comprising a sequence as shown in SEQ ID NO 2 or SEQ ID NO 10 or a functional equivalent or functional fragment thereof capable of causing apoptosis in a cell to which said proteinaceous substance has been administered,] and

mixtures thereof,

together with a pharmaceutically acceptable carrier, acceptable for said subject and said component to induce apoptosis.

21. (Amended) The method according to claim 19 wherein said [apoptosis is p53-independent.] apoptosis inducing substance is administered to a p53-minus cell.